Electron Model Parameters

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Constraints



- New: compare 0.1 T to 0.2 T
 - There has been a rumor that air-core magnets would be limited to 0.1 T
- Multiple of 6 cells (Carol)
- Low energy tunes: 0.39 (H), 0.24 (V), based on muon optimized doublet lattices
- \bullet a = 1/12, 3 mm normalized acceptance
- Would like at least 500 cell-turns



Cell Parameters



Cells	42	48	54	42	48
Pole Tip Field (T)	0.1	0.1	0.1	0.2	0.2
$\overline{\Delta E/V_{ extsf{cell}}}$	389	528	683	524	692
D Quad Length (mm)	139	122	109	68	61
D Quad Radius (mm)	18	16	15	14	13
F Quad Length (mm)	119	110	103	60	56
F Quad Radius (mm)	30	27	25	24	22
Cavity Voltage (kV)	26	19	15	19	14
Circumference (m)	21.3	23.1	24.9	15.9	17.6



Analysis



- Reduced pole tip increases number of cells slightly for same cell-turns
- Circumference increases dramatically for lower pole tip!
- Really need pole tip to greater precision
- Need to include lattice adjustment to non-isochronous
 - Will likely increase pole-tip requirement
 - However, other requirements may be less stringent for that experiment
 - Waiting for other input parameters to be more well-defined